Embiid notes C-AMERICA 1954
during freighter stops

20 Km W Guatemala City VIII-19-54

one embiid colony (cultured) was found in the crevice between a limb and trunk of a small tree growing in row between corn fields. Appeared to be the home of a single female. Egg mass and young present with ♀. Neorhagadochir salvini ?

Lago Amatitlan, Guatemala VIII-19-54

Neorhagadochir salvini? common on bark of large trees along lake shore, also on mossy rocks and in split trunks of small forest trees

2 spp of Oligembia in bark crevices of large trees 1 ♀ culture too rare to establish good cultures. Trees on densely wooded slopes near lake.

San Jose, Guatemala VIII-20-54

Numerous colonies of Pararhagadochir on tree trunks and fence posts throughout agricultural area.

One small colony of Oligembia found in hard bark of fence post in shade. 1 penult ♂ caught and cultured may have been damaged.

La Libertad, Salvador VIII-22-54 (Wet season)

Abundant colonies of *Oligembia*? on and under bark of fence posts, cut off small trees and branches.

Also possible *Neorhagadochir* on top of splintered trunk, tunnels extending up vine and leaves

Very small Oligembia ♂ in colony on dead stump (about 3" diam).

Colonies of another Oligembia in mossy bark flakes of large trees along creek - seems to be different than any of above.

All above mixed in cultures.

Stream called Rio El Jute Collecting done in shaded slopes

Puntarenas, Costa Rica VIII-24-54

Numerous colonies of *Oligotoma saundersii* on almost every tree (esp. coconut) along streets

Barranca (about 15 Mi S. Puntarenas) Costa Rica
VIII-25-54

First stop: Large trees and fence posts bordering pasture land - Raining season

Embiid colonies abundant in cut places in papery bark of small *Elaphrium* trees used as barb-wire fence posts. prob 3 spp. #1

Culture # 2 contains Neo. salvini only

Several colonies (possible Oligembia) present in trunk matted with aerial roots 1 ♀ culture
Numerous colonies of Neo-rhagadochir on large tree surfaces and Elaphrium posts. cultured

Cultures obtained may be mixed and may include saundersii #3

Stop 2: Wooded area in small creek bottom used as pasture heavy shade — very damp few embiid colonies observed

On slope above this place trees sparse in tall grass few scattered colonies found in bark crevices of small trees. 2 adult males of 2 sp. collected on one tree also one colony of Neorhagodochir. Cultures obtained. # 4

Balboa C.Z. VIII-27-54 Rainy season
All collecting on trees near central adm.

1. On bark of mango-like tree rather small tunnels in moss and along *Nasutitermes* galleries - *Pararhagadochir* *trinitatis* mature ♀s and young

2. Under bark flakes of same tree at least two kinds of *Oligembia* 1 small penult. ♂

3. *Oligembia* sp. ~~Burrowing~~ in bark and under bark flakes of large shade tree below front of administration building very abundant, conspicuous colonies not contiguous. Adult males were present. ♀s jet black males with dark head and tan body. Same sp. also on other trees in central park area.

~~Some~~ Plenty *O. saundersii* esp. on trees in Gorgas Hospital area.

Balboa C.Z. VIII-27-54 Rainy season
All collecting on trees near central mtn.

1. On bark of mango-like tree rather small tunnels in moss and along *Nasutitermes* galeries - *Pararhagadochir* *trinitatis* mature ♀s and young

2. Under bark flakes of same tree at least two kinds of *Oligembia* 1 small penult. ♂

3. *Oligembia* sp. *Burrowing* in bark and under bark flakes of large shade tree below front of administration building very abundant, conspicuous colonies not contiguous. Adult males were present. ♀s jet black males with dark head and tan body. Same sp. also on other trees in central park area.

~~Some~~ Plenty *O.* *saundersii* esp. on trees in Gorgas Hospital area.

Copied

Cali, Colombia VIII-29-54 Dry season

Open, grassy hillside with scattered mesquite

Embiids found in buttressed base of large tree with thorny bark. Colonies separate; silk obscured by debris. Cultured a few adult females, penult ♂, caught 1 adult ♂ – appears to be *saundersii*.

Numerous colonies found on occasional shade tree in Cali residential district. Assumed to be *saundersii*.

18 Km W Cali VIII-30-54 Moist hillside forest on west side of crest of ridge approx 6000'

Embiids found in separated colonies on and in rotting bark of fence posts. *Saussurembia* or *Schizembia* 1 adult male, about 6 mature females. cultured.

1 colony of adult ♀ found in mossy clay bank of road appeared to be saundersii – cultured.

1954 Colombia during freighter stops
then by car to Tingo Maria

Loma Lachar (?) near Chancay Peru IX-12-54

Green spot about 1500' el with "cloud forest" type trees loaded with ferns, moss etc. Numerous plants, many in bloom, mossy fence posts, stones but no trace of embiids

8 Km N.E. Pucusana Peru (S. of Lima)
IX-13-54 about 1000' el.

Chelicerca loma

Dry, rocky hillside densely covered with parched cactus. Embiids occasionally found under stones. Across road land less steep and sandy silt instead of rocky. Extensive colonies of "~~Seligembia~~" found under scattered lichen-covered rocks. Tunnels often run up into upper surface of rocks. Silk tends to be finely coated with sand and debris.

Mature females and young present and two adult males
eggs laid here and there on the walls of the tunnels.

One adult ♂ sclerogibbid collected

One extensive colony of embiids intermeshed in a large lichen (8" × 6" × 5" high) growing on ground. Ground blackish with fine lichen crust.

Area appears to be dampened each night by heavy wet fog.

Ocean about 2 miles off (in sight)

37 Km. E. Carhuamayo, Junin, Peru IX-15-54
Black Pararhagadochir discovered by Blanco.
Canyon extending down toward Amazon.
Embiids found at about 3300 M at lower edge
of true altiplano. Rocky area along stream
with bromeliads, low shrubs, Hypericum etc.
Slightly moist.
Embiids in conspicuous fresh white tunnels
at stone edges. usually solitary with single ♀
One large colony under big stone was densely
intermeshed in a plant growing at stone edge
At least 25 ad. of adult ♂♀ found in this.
Males seemed to be near upper ends of tunnel
One male caught in flight.
Day atmosphere like early spring
Few early instar young seen.

One female appears to be of a distinct sp.
Small, reddish, was cultured with above.

No trace of embiids found in Huanuco.
a very dry [illegible] zone.

Carpish Mtns West side IX-17-54

1st lot 30 mi N.E. Huanuco Zone of first dense shrubs, ferns etc. Oligembia n. sp. abundant in old adobe walls of abandoned house located in dense thicket. Tunnels visible on surface and extending into ~~the~~ cracks. 7 adult males present, 2 females and 1 penult ♂ cultured.

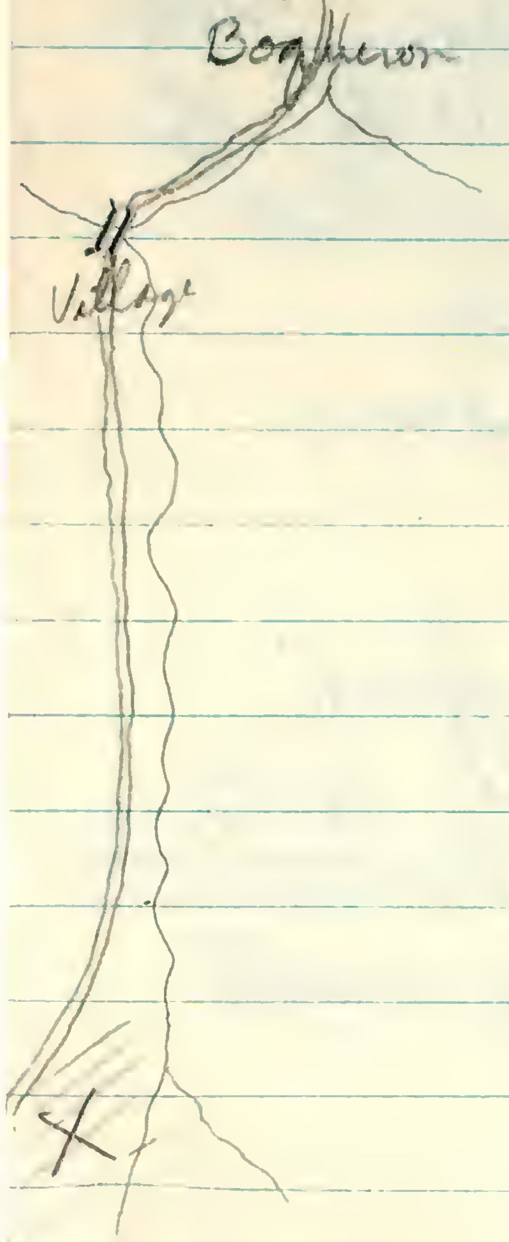
2nd lot 40 mi N.E Huanuco. Higher zone with cloud jungle. One ♂ + ♀ found in dead sapling in bark crevice. Large Oligembia with yellow prothorax and femora. (No culture ♂ died)

3rd lot Short distance above " Large adherent ~~Oligembiid~~ Bryonembia with inconspicuous tunnels in dead [illegible] of tree fern. Silk very thin, tunnels deeply situated in "cords" of tree trunk. Possible that silk less important in such a deeply grooved habitat. Eggs laid in clusters on woody surface. males present and adult females.

4th lot East side of crest in lush cloud forest. Tree on roadside with corky bark. 1 penult. ♂ of large sp. Pararhagadochir Several black and yellow prothoraced ♀ of small oligembia (?) found in bark crevices.

28 (Change "23" label in vial) mi E. of Tingo M a
West side of crest of Cord. Azul IX-27-54
Large tree in roadside slash, clear on all sides. Embiid tunnels in cracks and under bark flakes (unoccupied). Lower down in moss active colonies located.
2 adult ♂ of black *Pararhagadochir* similar to "blancasi" but smaller.
weak culture started

Above and below this locality on similar trees ~~Calamoclostes~~ sparingly found.
Archembia peruviana



Recently ~~thinned~~ primary forest planted in coffee about 5 mi W of east entrance to Boqueron Pass
Clothoda longicauda present in usual manner but sparingly
~~Calamoclostes~~ at base of stumps and trees. *Archembia longicauda*
Bluish-black female (*Pararhagadochir?*) found in one colony on small snag
Small *Oligembia*? with reddish prothorax found in moss and bark cracks of small stump